

# Naval Safety Center





**LESSONS** LEARNED

## HOLIDAY LADDER SAFETY

In the past decade, 43% of fatal falls nationally involved a ladder, and in 2016 over nine million people were treated in emergency rooms for fall-related injuries. Most of these deaths and injuries occur from a height of 10 feet or less. In a recent Naval Safety Center study of fall data, the Navy and Marine Corps appear to be safer than the general public at large, but the services' record isn't squeaky clean. From fiscal year 2014 through 2019, the naval services had 231 shore on-duty, and 91 recreational off-duty ladder falls resulting in 985 lost workdays, including 90 hospital days. What's the cost of those lost days? More than three million dollars. That's the price of two tricked out 11-meter rigid inflatable boats plus two fully loaded joint light tactical vehicles and two medium tactical vehicles...with nearly half



a million dollars left over. Factors contributing to those falls included slipping on rungs, overreaching, incorrect ladder setup, improper use, inappropriate ladder selection for a specific project, and insufficient inspection for deficiencies like worn or broken parts. The study also found that careless onduty ladder behavior correlated with similar behavior at home.

The holiday season poses additional risks as we heft the 75-pound tub of random decorations off the shelf, or stretch to hang that last string of "25,000 imported Italian twinkle lights" on the roof. So before you climb that ladder (*perhaps for the first time since you took the decorations down last February*), have a read, and learn from the bumps and bruises of those who climbed and fell before you.

• An employee was standing on a ladder and using an umbrella indoors (that's when the bad luck started). In a Mary Poppins-style attempt (only without the ability to fly) to remove a piece of cardboard from an air vent with the umbrella, the employee over-reached, lost her balance, and fell — not so gracefully — on a chair. The injuries to her right arm, shoulder, and back cost her 71 days on light duty.



- On the Saturday afternoon after Thanksgiving, a Sailor was in his garage retrieving holiday decorations from a loft (*instead of watching college football from the safety of his couch*). He had no trouble handling most of the totes, until that one way in the back. As he leaned forward to grab it, his foot slipped off the ladder, the ladder slammed shut, and both the ladder and our Sailor fell to the floor. This overreach led to a broken ankle and six weeks on light duty. *Know your limits, and please have someone hold the ladder*.
- A Sailor was hanging holiday lights outside over the garage when, in classic Clark Griswold form, he overreached just a bit and slipped from the ladder step. Fortunately for our "Christmas Vacation" reenactor, he survived with only an ankle sprain. We have no word if the little lights twinkled properly, but Petty Officer Griswold, Jr. had 30 days on light duty to find someone to take the lights down for him.

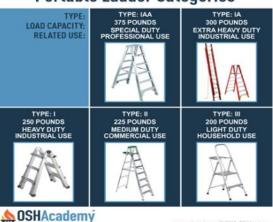
#### HOLIDAY LADDER SAFETY

- A Marine was using an extension ladder at his residence to put up holiday lights and (1) did not put the ladder at the proper angle, or (2) have a person holding it. If our Marine had performed step one properly, then having a person holding the ladder would have been less critical. Having failed both steps, however, the ladder slipped, and he hit the ground, shattering his elbow and breaking a rib. This tactical decorating mistake cost our Marine three days in the hospital and six weeks of convalescent leave. To even become a Marine, he must have aced the dreaded "A-Frame" ladder on the confidence course at Parris Island. Don't forget your professional training, on or off duty.
- A Sailor was putting away decorations. While pushing a box up into the attic like the Grinch shoving a tree up the chimney, he felt a sharp pain in his mid back, fell off the ladder, and momentarily lost consciousness *eesh*! The trip to medical found two bulging discs in his back, earning him six months of limited duty and physical therapy. *We're not sure if his heart grew three times that day, but he likely won't be putting away the decorations this year. Please be careful.*
- A Sailor was removing Christmas lights from his mother-in-law's residence. Upon his third trip up the ladder (so far so good), he was about to transition to the first-floor roof of the home when the ladder slipped out from underneath him (not so good; glad it wasn't the second floor). Instead of stepping onto the first-floor roof, our Sailor stepped all the way to the first floor (ground), sustaining a sprained left wrist as well as a bruised right hip and right quadriceps. Given what the study showed about most deaths happening from 10 feet or lower, we are thankful the outcome wasn't worse. Transitioning from a ladder to a roof can be one of the most dangerous moments. Take your time, every time.

### **Key Takeaways**

- 1. **All ladders aren't the same**. According to the National Institute of Occupational Safety and Health (NIOSH) and real-life experience choosing the wrong ladder for a job places the user at increased risk for a fall. Ladders are not a "one size fits all." Carefully consider which ladder type is right for your project. Don't use an extension ladder as a step ladder (or vice versa), or it won't end up well for you.
- 2. Know how to use a ladder properly; there's an App for that. The NIOSH "Ladder Safety" app can be useful, especially if you're not a regular ladder user. It includes a measuring tool for ladder angle and placement, ladder selection help, proper ladder use tools, and more. Knowing these tips could have averted an unexpected trip to the ground for our unlucky Sailors and Marines.

# Portable Ladder Categories



- 3. **Know yourself and your limitations.** Handling weight on a ladder is not the same as on the ground, as some of our Sailors and Marines learned firsthand. Know your abilities before you find out the hard way that you can't climb a ladder with a bin full of yard ornaments. If you're a once-a-year ladder user, educate yourself on proper ladder set up and use. Those yellow caution statements on the ladder such as "Do not stand on or above this step" and "Do not overreach" are there for a reason.
- 4. When in doubt (always), get a ladder holder. The job doesn't require much training, so ask anyone (spouse, friend, neighbor, random stranger, etc.) to hold the ladder for you. Please enjoy your holiday decorations cast and crutches free.

For the complete Naval Safety Center study, email us at NAVSAFECEN\_CODE522\_LESSONS\_LEARNED@navy.mil.

This product is posted on the NAVSAFECEN CAC-enabled website at <a href="https://intelshare.intelink.gov/sites/navsafe">https://intelshare.intelink.gov/sites/navsafe</a>.